

In the Claims:

1. (Canceled)
2. (Canceled).
3. (Previously Presented) An initiator explosive device for detonating a second explosive comprising:
porous nanocrystalline silicon; and
a solid state oxidant nitrate salt disposed within pores of said porous nanocrystalline silicon, wherein said nitrate salt is selected from the group consisting of sodium nitrate, potassium nitrate, ammonium nitrate, magnesium nitrate, calcium nitrate, and gadolinium nitrate.
4. (Canceled).
5. (Canceled).
6. (Canceled).
7. (Canceled).
8. (Currently Amended) ~~The explosive device of claim 1~~ An initiator explosive device for detonating a second explosive comprising:
porous nanocrystalline silicon; and
an explosive solid state oxidant disposed within pores of said porous nanocrystalline silicon
wherein said porous nanocrystalline silicon comprises a thin film, wherein said solid state oxidant comprises a solid state oxidant selected from the group consisting of PETN, a metal azide, and TNT.

9. (Currently Amended) The explosive device of ~~claim 1~~claim 8 wherein said solid-state oxidant is baked into the pores of said porous nanocrystalline silicon.

10. (Canceled).

11. (Canceled)

12. (Canceled).

13. (Canceled)

14. (Previously Presented) A method for detecting a target analyte comprising:

providing an initiator explosive device of nanocrystalline silicon having a plurality of pores disposed therein; and a solid state oxidant disposed within said pores;

igniting the porous nanocrystalline silicon containing the target analyte and the oxidant; and

measuring an emission spectrum for the presence of the target analyte.

15. (Previously Presented) The method of claim 14 further comprising providing a porous nanocrystalline silicon substrate in the form of a thin film.

16. (Canceled)

17. (Original) The method of claim 14 further comprising selecting the oxidant to be gadolinium nitrate.

18. (Previously Presented) The method of claim 14 further comprising baking the oxidant with the nanocrystalline silicon so that the oxidant is baked into pores of the porous nanocrystalline silicon.

19. (Original) The method of claim 14 further comprising absorbing from between approximately 1 and 10 micro liters.

20. (Original) The method of claim 14 further comprising igniting by resistively heating a silicon filament.

21. (Original) The method of claim 14 further comprising photographing the emission spectra.

22. (Original) The method of claim 21 further comprising subjecting the photograph to spectrometry analysis.

23. (Previously Presented) The method of claim 14 further comprising absorbing a predetermined amount of a solution containing the target analyte on the porous nanocrystalline silicon.

24. (Previously Presented) The method of claim 14 further comprising absorbing a predetermined amount of ambient gas containing the target analyte on the porous nanocrystalline silicon.

25. (Previously Presented) The method of claim 14 further comprising absorbing a predetermined amount of ambient liquid containing the target analyte on the porous nanocrystalline silicon.

26. (Previously Presented) The method of claim 14 further comprising absorbing a predetermined amount of ambient particulate matter containing the target analyte on the porous nanocrystalline silicon.

27. (Canceled).

28. (Canceled).

29. (Canceled)

30. (Currently Amended). ~~The device of claim 29~~ An initiator explosive device for detonating a second explosive comprising:

porous nanocrystalline silicon; and

a solid state oxidant disposed within pores of said porous nanocrystalline silicon, wherein said porous nanocrystalline silicon comprises one of a film or thin film of porous silicon electrochemically etched into a single crystal or polycrystalline silicon substrate, a nanocrystalline silicon nanowire, and a powder of porous crystalline silicon particles, wherein said porous nanocrystalline silicon comprises a nanowire.

31. (Canceled).